

Notice of Allowability

Application No.

10/686,603

Examiner

Erica E. Cadugan

Applicant(s)

ZORAN, DON

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amdt filed 12/29/2005 and interview of 3/9/06.
2. ☒ The allowed claim(s) is/are 4,5,9,13,14,17,18 and 20-22.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Valentine Cottrill on March 9, 2006.

The application has been amended as follows:

Claim 4 (Currently Amended). A machine tool for performing a machine tool function including a plurality of components adapted to cooperate with each other to execute the machine tool function, the plurality of components including a stationary base on which the machine tool is supported, the machine tool having:

a plurality of constituent parts, each said constituent part being substantially rigid;

a plurality of sheets of damping material, each comprising polyvinylchloride with a thickness between approximately 0.01 inch and approximately 0.02 inch;

each said sheet having at least one hole formed therein;

each said component comprising at least two of said constituent parts and at least one of said sheets, said at least one sheet being interposed between said at least two constituent parts, to prevent said at least two constituent parts from contacting each other;

each said constituent part including at least one first surface adapted to cooperate with at least one second surface on an adjacent constituent part to define a slot in which said at least one

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sheet is receivable, said at least one sheet being interposed between said at least one first surface and said at least one second surface to form each said component;

each said sheet being substantially planar and substantially non-resilient;

and each of said at least two constituent parts having at least one hole drilled therein respectively, each said at least one hole in each said constituent part being substantially aligned with said at least one hole in said at least one sheet to receive a bolt for fastening said at least two constituent parts together with said at least one sheet positioned therebetween, to form each said component ~~[and to maintain said at least two constituent parts under compression and substantially stationary relative to each other],~~

whereby ~~[relative vibratory movement between said at least two constituent parts is precluded]~~ vibration of the machine tool while performing the machine tool function is damped by said sheets of damping material.

Claim 6 has been canceled (incorporated into claim 4).

Claim 13 (Currently Amended). A machine tool for performing a machine tool function including a plurality of components adapted to cooperate with each other to execute the machine tool function, the plurality of components including a stationary base on which the machine tool is supported, the machine tool having:

a plurality of constituent parts, each said constituent part being substantially rigid;

a plurality of linings for damping vibration of the machine tool during performance of the machine tool function, each said lining being substantially planar;

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each said component comprising at least two of said constituent parts and at least one of said linings sandwiched therebetween, to prevent the constituent parts from contacting each other;

each said lining being polyvinylchloride, being substantially non-resilient, and having a thickness between approximately 0.01 inch and approximately 0.02 inch;

each said lining having at least one hole formed therein;

one of said at least two constituent parts having at least one first mating surface adapted to cooperate with at least one second mating surface of the other of said at least two constituent parts to define a slot for receiving said at least one lining, said at least one lining being configured to maintain contact with said at least one first mating surface and with said at least one second mating surface when said at least one lining is positioned therebetween such that vibration of the machine tool during performance of the machine tool function is damped by said at least one lining; and each of said at least two constituent parts having at least one hole drilled therein, each said at least one hole being substantially aligned with said at least one hole in said lining to receive a bolt for fastening said at least two constituent parts together with said lining positioned therebetween to form each said component [~~and to maintain said at least two constituent parts under compression and substantially stationary relative to each other~~],

whereby [~~relative vibratory movement between said at least two constituent parts is precluded~~] vibration of the machine tool is damped by said linings in said components.

Claim 15 has been canceled. (Incorporated into claim 13).

Claim 18 (Currently Amended). A method of damping vibration of a machine tool, the machine tool being adapted to perform a machine tool function and including a plurality of

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machine tool components adapted to cooperate with each other to execute the machine tool function, the plurality of components including a stationary base on which the machine tool is supported, the method comprising the steps of:

(a) providing at least two constituent parts for each said component, each said constituent part being substantially rigid, each said constituent part having at least one hole drilled therein;

(b) providing at least one sheet of polyvinylchloride damping material for each said component, said at least one sheet of damping material having a thickness between approximately 0.01 inch and approximately 0.02 inch and having at least one hole formed therein;

(c) forming each said component by interposing said at least one sheet of damping material between said at least two constituent parts, said at least one sheet of damping material being substantially non-resilient, said at least one hole in said at least one sheet of damping material being substantially aligned with said holes drilled in said at least two constituent parts; and

(d) inserting a bolt into said at least one hole in said at least one sheet of damping material and said holes drilled in said at least two constituent parts to fasten said at least two constituent parts together with said at least one sheet of damping material positioned therebetween to form each said component [~~and to maintain said at least two constituent parts under compression and substantially stationary relative to each other~~],

whereby [~~relative vibratory movement between said at least two constituent parts is precluded~~] said at least one sheet of damping material dampens vibration of the machine tool during performance thereby of the machine tool function.

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Claim 19 has been canceled (incorporated into claim 18).

Claim 21 (Currently Amended). In a machine tool adapted for performing a machine tool function, the machine tool including a plurality of components adapted for cooperation with each other to execute the machine tool function, the plurality of components including a stationary base on which the machine tool is supported, the improvement comprising

each said component including at least two constituent parts, each said constituent part being substantially rigid, one of said at least two constituent parts having at least one first surface and the other of said at least two constituent parts having at least one second surface positioned parallel to said at least one first surface to define an aperture therebetween, and at least one sheet of polyvinylchloride damping material having a thickness between approximately 0.01 inch and approximately 0.02 inch and being receivable in the aperture between said at least one first surface and said at least one second surface to be sandwiched therebetween for dampening vibration of the machine tool, said at least one sheet being substantially non-resilient, said at least one sheet having at least one hole formed therein, each of said at least two constituent parts having at least one hole drilled therein respectively, each said hole in said at least two constituent parts being substantially aligned with said at least one hole in said at least one sheet of damping material to receive a bolt for fastening said at least two constituent parts together with said at least one sheet positioned therebetween to form each said component [~~and to maintain said at least two constituent parts under compression and substantially stationary relative to each other~~]

whereby [~~relative vibratory movement between said at least two constituent parts is precluded~~] said at least one sheet of damping material dampens vibration of the machine tool during performance thereby of the machine tool function.

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Claim 22 (Currently Amended). A component in the form of a stationary base on which a machine tool is supported to be included in [a] the machine tool, said component having predetermined dimensions, the component including:

at least two constituent parts, each said constituent part being formed of substantially rigid material;

at least one sheet of polyvinylchloride damping material, said at least one sheet of damping material being substantially non-resilient;

said at least two constituent parts cooperating with each other to form at least one slot in which said at least one sheet is receivable;

said at least one sheet separating each of said at least two constituent parts from each other to limit vibration of the machine tool;

said at least one sheet of damping material having a thickness between approximately 0.01 inch and approximately 0.02 inch and having at least one hole formed therein;

each of said at least two constituent parts having at least one hole drilled therein respectively; and

each said hole in said at least two constituent parts being substantially aligned with said at least one hole in said at least one sheet of damping material to receive a bolt for fastening said at least two constituent parts together with said at least one sheet of damping material positioned therebetween to form [each] said component [~~and to maintain said at least two constituent parts under compression and substantially stationary relative to each other~~].

2. The following is an examiner's statement of reasons for allowance:

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Firstly, it is noted that the above examiner's amendment incorporates limitations that bring the claims more in line with what was argued in by Applicant in the response filed 12/29/2005 and in the affidavit filed 12/29/2005. Note also that U.S. Pat. No.'s 4,413,398 to Kuczenski and 3,169,412 to Weeks, discussed in detail in the office action mailed September 29, 2005, are considered to be examples of the closest prior art of record to the present invention as set forth in the independent claims 4, 13, 18, 21, and 22.

Kuczenski and Weeks were both discussed in detail in the 9/29/05 office action. Suffice it to say, as set forth in the 9/29/05 action, Kuczenski does not teach any sort of damping arrangement, and Weeks was relied upon to teach a damping arrangement.

However, Weeks is silent as to the specific value of the thickness of the damping material layer and thus does not explicitly teach that the damping material "has a thickness between approximately 0.01 inch and approximately 0.02 inch" as now set forth in each of independent claims 4, 13, 18, 21, and 22. Furthermore, while Weeks does explicitly teach that the damping material may be of "any suitable form" (col. 2, lines 18-19), Weeks does not explicitly teach that the damping material is a "non-resilient" and "polyvinylchloride" material as now set forth in each of independent claims 4, 13, 18, 21, and 22.

Even assuming *arguendo* that it would have been obvious to have utilized whatever range of thicknesses as was desired or expedient for the damping material (as described with respect to at least the previous rejection of claims 13 and 18 in the office action of 9/29/05) and to have utilized "polyvinylchloride" as described on at least page 4 of the office action of 9/29/05, Examiner notes that the present invention as set forth in each of the independent claims 4, 13, 18, 21, and 22 would still not result, since Weeks (neither alone nor in combination with Kuczenski)

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does not teach that the plurality of “components” (the components each having the limitations set forth in the claims) include a “stationary base on which the machine tool is supported” as set forth in independent claims 4, 13, 18, 21, nor the similar limitation from independent claim 22 of a component “in the form of a stationary base on which a machine tool is supported to be included in the machine tool” (the component of claim 22 having the limitations set forth in the claim).

Additionally, there is no combinable teaching in the prior art of record that would reasonably, and absent impermissible hindsight, motivate one having ordinary skill in the art to so modify the teachings of either Weeks or Kuczenski, and thus, for at least the foregoing reasoning, neither Weeks nor Kuczenski render obvious the present invention as set forth in independent claims 4, 13, 18, 21, and 22.

The described references being representative of the closest prior art of record to the present invention as set forth in the independent claims, for at least the foregoing reasoning, the prior art of record neither anticipates nor renders obvious the present invention as set forth in the independent claims.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erica E. Cadugan whose telephone number is (571) 272-4474. The examiner can normally be reached on M-F, 6:30 a.m. to 4:00 p.m., alternate Fridays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer D. Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Erica E Cadugan
Primary Examiner
Art Unit 3722

eec

March 13, 2006